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Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1.   (currently amended) [[An]] A computer readable medium containing a data structure for storing an availability model for a computer platform with at least one software component having different classes of failures, the data structure comprising:

an availability model for said platform defining expected failure rates and time to recover from the expected failures for components of the platform; and

a software availability model within said platform availability model, said software availability model including an aggregated failure rate for each of said classes of failures for said at least one software component and an aggregated repair time for each of said classes of failures for said at least one software component,

wherein the classes of failures for the software components comprise one or more of application failures that can be corrected internally with no loss of service or state, application failures that can be corrected by a restart with no loss of state, application failures that can be corrected by a restart with loss of state, and application failures that can be corrected by fail over.

2.   (currently amended) The availability model computer readable medium of claim 1, wherein said software availability model includes parameters for said platform, wherein the platform parameters define platform problems causing failures and affecting recovery times related to the platform problems and wherein at least a portion of the platform parameters are used to determine the aggregated repair time.

3.   (currently amended) The availability model computer readable medium of claim 1, further the data structure further including a hardware component availability model within said platform availability model.

4.   (currently amended) The availability model computer readable medium of claim 1, wherein said aggregated repair time includes a time to detect and identify an error associated with running the at least one software component on said platform.

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5.   (currently amended) The ~~availability model~~ <u>computer readable medium</u> of claim 1, wherein said platform is a node in a network.

6.   (currently amended) A <u>computer readable medium containing a data structure for storing a</u> network model of a network having at least one node, <u>the data structure</u> comprising:

a node model for said at least one node;

node parameters for said node model, said node parameters including a reboot time; and

a software availability model having an aggregated failure rate and an aggregated repair time for each software component on said at least one node wherein each software component has different error levels and said software availability model represents each of said different error levels.

7.   (currently amended) The ~~network model~~ <u>computer readable medium</u> of claim 6, ~~further~~ <u>the data structure further</u> comprising a hardware component model for said at least one node.

8.   (currently amended) A <u>computer-based</u> method for incorporating a software component into a model of a network, comprising:

determining failure rates for warm recoverable errors and non-warm recoverable errors of said software component, wherein the warm recoverable errors comprise application failures that can be corrected by a restart without loss of state of the application and the non-warm recoverable errors comprise application failures that can be corrected by a restart with loss of state of the application;

determining recovery rates for the warm recoverable errors and the non-warm recoverable errors of said software component;

<u>with a network modeling application running on a computing device,</u> generating warm recoverable error state parameters from said warm recoverable error failure rates and said warm recoverable error recovery rates; [[and]]

<u>with the network modeling application,</u> generating non-warm recoverable error state parameters from said non-warm recoverable error failure rates and said non-warm recoverable error recovery rates[[.]] <u>;</u>

<u>operating the network modeling application to construct the model of the network including the warm recoverable error state parameter and the non-warm recoverable error state parameters for the software component; and</u>

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storing the model of the network in memory.

9.   (currently amended) The method of claim 8, further comprising with the network modeling application determining a fraction of recovery failures for said warm recoverable errors by dividing a number of failures to recover from said warm recoverable errors by a number of attempted recoveries from said warm recoverable errors, wherein the number of failures is greater than or equal to zero and the number of attempted recoveries is greater than or equal to one.

10.   (previously presented) The method of claim 9, wherein said first generating step includes said fraction of recovery failures for said warm recoverable errors.

11.   (currently amended) The method of claim 8, further comprising with the network modeling application determining a fraction of recovery failures for said non-warm recoverable errors by dividing a number of failures to recover from said non-warm recoverable errors by a number of attempted recoveries from said non-warm recoverable errors, wherein the number of failures to recover from said non-warm recoverable errors is greater than or equal to zero and the number of attempted recoveries from said non-warm recoverable errors is greater than or equal to one.

12.   (previously presented) The method of claim 11, wherein said second generating step includes said fraction of recovery failures for said non-warm recoverable errors.

13.   (currently amended) The method of claim 8, further comprising with the network modeling application receiving node recovery parameters.

14.   (original) The method of claim 13, wherein said node recovery parameters include node reboot parameters.

15.   (currently amended) The method of claim 8, further comprising with the network modeling application receiving network recovery parameters, including network reboot parameters.

16.   (currently amended) A computer-based method for modeling a software error within a network model, comprising:
        determining a recoverable state for said error;
        determining a failure rate for said error;

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determining a recovery rate for said error;

with a network modeling application running on a computing device, incorporating said failure rate and said recovery rate into said recoverable state;

with the network modeling application, determining a fraction of recovery failures for said error by dividing a number of failures to recover from said error by a number of attempted recoveries from said error, wherein the number of failures is greater than or equal to zero and the number of attempted recoveries is greater than or equal to one; [[and]]

with the network modeling application, incorporating said fraction of recovery failures into said recoverable state[[.]] ;

operating the network modeling application to construct the network model including the recoverable state for said error for the software error; and

storing the model of the network in memory.

17.   (canceled)

18.   (previously presented) A computer program product comprising a computer useable medium having computer readable code embodied therein for incorporating a software component into a model of a network, the computer program product adapted when run on a computer to effect steps including:

determining failure rates for warm recoverable errors and non-warm recoverable errors of said software components, wherein the warm recoverable errors comprise application failures that can be corrected by a restart without loss of state of the application and the non-warm recoverable errors comprise application failures that can be corrected by a restart with loss of state of the application;

determining recovery rates for the warm recoverable errors and the non-warm recoverable errors of said software component;

generating warm recoverable error state parameters from said warm recoverable error failure rates and said warm recoverable error recovery rates; and

generating non-warm recoverable error state parameters from said non-warm recoverable error failure rates and said non-warm recoverable error recovery rates.

19.   (previously presented) A computer program product comprising a computer useable medium having computer readable code embodied therein for modeling a software error within a network model, the computer program product adapted when run on a computer to effect steps including:

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determining a recoverable state for said error;

determining a failure rate for said error;

determining a recovery rate for said error; and

incorporating said failure rate and said recovery rate into said recoverable
state;

determining a fraction of recovery failures for said error by dividing a number
of failures to recover from said error by a number of attempted recoveries from said
error, wherein the number of failures is greater than or equal to zero and the number
of attempted recoveries is greater than or equal to one; and

incorporating said fraction of recovery failures into said recoverable state.

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